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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HAMO, PATRICK	

ART UNIT	PAPER NUMBER
3746	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ED

Office Action Summary	Application No.	Applicant(s)	
	10/776,769	KADLICKO, GEORGE	
	Examiner	Art Unit	
	Patrick Hamo	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to amendments filed on April 25, 2007.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the annular sleeves" in the final line of the claim. There is insufficient antecedent basis for this limitation in the claim. Applicant only positively recites a single "annular sleeve" (claim 1, line 10).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 13 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Larkin et al., Pat. No. 6,629,822.

Larkin discloses a hydraulic machine comprising a housing 13, a rotary group 17 rotatably mounted within the housing and including barrel 17 and a plurality of pistons 41 axially slideable in cylinders 40 in the barrel, and a swashplate assembly 45 to engage the pistons and induce reciprocation thereof as the barrel rotates in the housing, a port plate 36 interposed between the barrel and the housing and effective to connect respective ones of the cylinders alternatively with an inlet port 61 and an outlet port 62, the port plate having a face biased into engagement with a sealing face on the barrel (col. 3, ll. 58-60) and connected to the housing by an annular sleeve 81 extending between and in sealing engagement with the port plate and the housing, whereby upon rotation of the barrel relative to the housing, the faces are maintained in sealing contact by the bias and misalignment between the port plate and the housing is accommodated by the annular sleeve 81 (see fig. 3); wherein the port plate is secured to the housing and the face is provided on the barrel; and wherein the barrel is mounted on a shaft 18 extending through the housing and secured thereto by a key 34 and is located axially on the shaft by a shoulder 33 formed on the shaft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time said invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 5-8 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larkin in view of Kita, Pat. No. 3,498,227.

Larkin discloses all of the limitations substantially as claimed except for the following taught by Kita: the machine, wherein:

the bias is provided by a pair of circumferentially spaced spring sets 43 acting on the port plate 22 at radially spaced locations (one spring set in each cylinder, as seen in fig. 1), between the plate and the housing;

the port plate 22 rotates (col. 3, ll. 25-31) and the face is provided on the housing, wherein the annular sleeves 41 are located within each of the cylinders 32;

the sleeves 41 are sealed by sealing rings within the cylinders and are axially slidable relative to the cylinders (col. 4, ll. 41-47);

the springs 43 are located in respective chambers (lower section of cylinder 32) and the chambers are selectively connected to the cylinders as the barrel rotates to balance hydraulic forces imposed by the barrel on the plate (col. 4, ll. 34-59);

the chambers are connected to the cylinder 32 by a restricted flow path in the form of an orifice in the plate (col. 4, ll. 34-59).

The machine of Kita with the structures recited above provides a means for controlling the discharge of axial pumps which can be used with any thrust bearing (col. 1, ll. 39-50).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the machine taught by Larkin with that of Kita in order to control the discharge with any thrust bearing.

Claims 3-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 2 and 8 above in view of Takenaka, Pat. No. 6,517,321.

The references as applied to claims 2 and 8 above disclose all of the limitations substantially as claimed except that one of said spring sets is a conical spring acting at a radially inner location on said port plate.

However, Takenaka teaches a variable displacement compressor with a conical spring 65 acting at a radially inner location of a port plate 63 as a means of restricting the movement of the port plate and providing support thereto (col. 6, ll. 35-41).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references as applied to claims 2 and 8 above with the conical spring of Takenaka in order to restrict movement of the port plate and provide support thereto.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 5 above in view of Budzich, Pat. No. 5,205,124.

The references as applied to claim 5 above teach all of the limitations substantially as claimed except for the following: a hydrodynamic bearing provided between the port plate and the housing.

However, Budzich teaches a piston motor with a hydrodynamic bearing 65 positioned between a valve plate 46 and a housing 22 as a means of providing a

balancing force between the port plate and the housing as well as providing lubrication for higher running efficiency (col. 1, ll. 12-61).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references as applied to claim 5 above with the hydrodynamic bearing of Budzich in order to provide a balancing force between the port plate and the housing and provide lubrication for higher running efficiency.

Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larkin in view of Kimura et al., 5,749,710.

Larkin discloses all of the limitations substantially as claimed except for the following taught by Kimura: a barrel 13 is mounted on a shaft 7 extending through said housing 2 and secured thereto by a key 12a; a control circuit (col. 7 lines 6-17) having at least one sensed input thereto indicative of a parameter of said rotating group (col. 7 lines 18-26); wherein said sensed input includes rotation of said barrel in said housing (col. 7 lines 6-17); wherein said barrel includes a toothed ring 8 extending about said barrel to co-operate with a sensor 18 in said housing and provide a time varying signal as said barrel rotates (col. 7, ll. 18-26), as a means of accurately actuating the speed and output of the compressor (col. 8, ll. 8-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the machine of Larkin to incorporate the barrel

rotation sensing arrangement taught by Kimura in order to accurately actuate the speed and output of the compressor.

Response to Arguments

Applicant's arguments, see pages 5-8, filed April 25, 2007, with respect to the rejection(s) of claim(s) 1-24 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references and different interpretation of the previously applied references.

Conclusion

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims 'define a patentable invention' without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, 'The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims.'" Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02. The "disclosure" includes the claims, the specification and the drawings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Hamo whose telephone number is 571-272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Stashick
Supervisory Patent Examiner
Art Unit 3746

PH